AMENDMENTS TO THE SPECIFICATION:

IN THE ABSTRACT:

Please replace the original page 26 with the accompanying replacement page 28 (of new clean copy, submitted herewith), which includes the following rewritten paragraph beginning at page 28, line 2:

A mixed-signal core ~~disclosed herein is~~ designed for efficient concurrent testing analog, mixed-signal, and digital components. One tester may test all components and, thereby, reduce test time without losing full test coverage. An analog module includes all the analog and mixed-signal components of the mixed-signal core, while a first digital module includes digital components required for functional/parametric verification of the mixed-signal components within the analog module. A first virtual boundary connects the analog and the first digital modules to gate the signal transfer during testing. A second digital module includes the remaining digital components of the mixed-signal core, whereby a second virtual boundary separates it from the first digital module. This type of partitioning enables the mixed-signal core to have three modes of operation, using which the analog, mixed-signal and digital components can all be tested ~~wherein the first mode of operation provides digital interface characterization testing of the first and second digital module and analog characterization/trimming testing of the analog module. In the second mode of operation, concurrent testing of the analog module and the first and second digital module is conducted; wherein analog characterization/trimming testing is performed on the analog module and digital interface characterization testing is performed on the first digital module, while SCAN/BIST testing is performed on the second digital module. In the third mode of operation, non-concurrent testing of the analog module, the first digital module, and the second digital module is enabled; wherein SCAN/BIST testing of the first digital module and the second digital module is enabled, while the analog module is powered down~~.